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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Caroline Blaizot

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EXAMINER

SINGH, DALZID E

ART UNIT

PAPER NUMBER

2633

DATE MAILED: 02/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/963,514

Applicant(s)

BLAIZOT, CAROLINE

Examiner

Dalzd Singh

Art Unit

2633

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8-13 is/are allowed.
- 6) ☒ Claim(s) 1,2,5 and 14-17 is/are rejected.
- 7) ☒ Claim(s) 3,4,6,7,18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 17 recites the limitation "the multiplex" in line 2 and "the same multiplex" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beshai et al (US Patent No. 6,882,799).

Regarding claim 1, Beshai et al discloses multi-grained network for switching subnodes in wavelength division multiplex optical switching network, as shown in Fig. 2, which method includes the following steps:

(a) collecting information concerning how traffic is crossing the initial monoblock switching node (see Fig. 13 and col. 14, lines 45-67 to col. 15 lines 1-18);

(c) considering each subnode successively in an order corresponding to reducing switching constraints (see col. 11, lines 45-65 and col. 12, lines 25-54); and

(d) for each subnode, selecting all or part of the traffic of an incoming and an outgoing that satisfy the switching constraints of the subnode concerned (see col. 11, lines 25-67 to col. 13, lines 1-30).

Beshai et al differs from the claimed invention in that Beshai et al do not specifically disclose defining granularity and switching function of the subnodes to be detected. In col. 6, lines 16-57 and Fig. 2, Beshai et al disclose and show different granularities of the network. In col. 3, lines 3-6, Beshai et al disclose multigrained network in which core modules support paths of different granularity and switches and col. 6, lines 57-60, Beshai et al disclose data traffic is transferred on data links by switched WDM fiber connections. Since the multigrained network of Beshai et al comprises of different granularities and switches, therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to provide method of which define the granularity and switching function. One of ordinary skill in the art would have been motivated to do such in order to provide best path for carrying data traffic and hence reduce or eliminate traffic constraints.

Regarding claim 2, as discussed above, Beshai et al disclose that the information collected in step (a) is information contained in the initial switching matrix of the monoblock node whose subnodes are to be detected (it would have been obvious that initial switching of the switch is detected in order to compare and optimize switching of the system).

Regarding claim 15, Beshai et al disclose that the switching constraints are independent of capacity of a switching path (in col. 7, lines 17-22, Beshai et al disclose

that connection request are service based on traffic pattern and in col. 13, lines 2-9, Beshai et al disclose that the connection request is service based on data rate).

Regarding claim 16, Beshai et al disclose multigrained network and differ from the claimed invention in that Beshai et al do not specifically disclose switching constraints include a constraint that no internal traffic can be generated between subnodes that have the same level of granularity. In col. 3, lines 62-67 and col. 5, lines 44-64, Beshai et al disclose different granularities, therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to alter traffic pattern so that no internal traffic can be generated between subnodes that have the same level of granularity. One of ordinary skill in the art would have been motivated to do such in order to alleviate constraints within particular level of granularity.

5. Claims 5, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beshai et al (US Patent No. 6,882,799) in view of Kirby (US Patent No. 6,647,208).

Regarding claim 5, Beshai et al disclose multi-grained network for switching subnodes, as discussed above, and differ from the claimed invention in that Beshai et al do not specifically disclose the following substeps:

(d1) marking all of the traffic of the incoming granularity as coming from the subnode concerned and all the traffic of the outgoing granularity as going to the subnode concerned;

(d2) marking the traffic that satisfies the switching constraints of the subnode concerned as belonging to that subnode; and

(d3) increasing the number of ports of the subnode concerned.

However, it is well known to mark traffic signal. Kirby et al shows such well known concept. In col. 3, lines col. 7, lines 38-61, Kirby uses tags (markings) for monitoring traffic flows from source to destination and for controlling the switch. Therefore, it would have been obvious to an artisan of ordinary skill in the art to at the time the invention was made to implement such method, as disclosed by Kirby, to the system of Beshai et al. One of ordinary skill in the art would have been motivated to do this in order to detect traffic flow.

Regarding claim 14, Beshai et al disclose switching function and differs from the claimed invention in that Beshai et al do not disclose that some of said subnodes are associated with a switching function which involves frequency translation, and others of said subnodes are associated with a switching function that involves switching without frequency translation. Kirby teaches the use of regenerator which is able to convert or translate the signal to any desired signal (see col. 9, lines 18-22 and Fig. 2A). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to associate such translation function to certain switching function of Beshai et al. One of ordinary skill in the art would have been motivated to do this in order to avoid conflict between data signal.

Regarding claim 17 (as far as understood), Beshai et al disclose switching function and differs from the claimed invention in that Beshai et al do not disclose the method cannot switch one portion of signal with wavelength translation and another portion of the signal without wavelength translation. Kirby teaches the use of

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regenerator which is able to convert or translate the signal to any desired signal (see col. 9, lines 18-22 and Fig. 2A). Therefore, it would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to associate such translation function to certain switching signal of Beshai et al. One of ordinary skill in the art would have been motivated to do this in order to avoid conflict between data signal.

Allowable Subject Matter

6. Claims 8-13 are allowed.
7. Claims 3, 4, 6, 7, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

8. Applicant's arguments filed 22 November 2005 have been fully considered but they are not persuasive.

Applicant argues that Beshai et al does not appear to discuss different switching functions. Such limitation "*different* switching functions" is not found in the claim. In col. 3, lines 3-6, Beshai et al disclose multigrained network in which core modules support paths of different granularity and switches and col. 6, lines 57-60, Beshai et al disclose data traffic is transferred on data links by switched WDM fiber connections. Based on this it is clear that the multigrained network of Beshai et al performs switching function.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicant further argues that the only switching constraints in Beshai et al is based on capacity. However, in col. 7, lines 17-22, Beshai et al disclose that connection request are service based on traffic pattern and in col. 13, lines 2-9, Beshai et al disclose that the connection request is service based on data rate. Therefore, based on this, the switching constraints (which is based on connection request), is based on traffic pattern and data rate.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chaudhuri et al (US Pub. No. 2002/0030864) is cited to show control of optical connections in an optical network.

Graves et al (US Pub. No. 2002/0064336) is cited to show protection switching arrangement for an optical switching system.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalzid Singh whose telephone number is (571) 272-3029. The examiner can normally be reached on Mon-Fri 9am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (571) 272-3022. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DS
February 3, 2006

David Singh